

Title (en)

Multilayer ceramic substrate and its production method

Title (de)

Mehrschichtiges Keramiksubstrat und Verfahren zu dessen Herstellung

Title (fr)

Substrat céramique multicouche et son procédé de fabrication

Publication

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Application

EP 05003439 A 20050217

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JP 2004054271 A 20040227

Abstract (en)

An object of the invention is to connect different dielectrics electrically to each other in the direction of main surface of a sheet in a multilayer ceramic substrate and to increase the degree of flexibility in design and make the multilayer ceramic substrate compact in size. A multilayer ceramic substrate in accordance with the invention is formed of a plurality of laminated ceramic substrates including such a composite ceramic substrate of different materials that is made by inserting the second ceramic substrate (6) in a pounched-out portion made in the first ceramic substrate (1) and by planarizing its top and bottom surfaces, wherein a conductive layer (11) is formed in a portion across a boundary between the first ceramic substrate and the second ceramic substrate of the interface of the composite ceramic substrate of different materials.

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H05K 3/46; H05K 1/16

IPC 8 full level

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Citation (examination)

- US 6072690 A 20000606 - FAROOQ MUKTA S [US], et al
- US 5759331 A 19980602 - WALLACE KENNETH M [US]
- US 5274916 A 19940104 - KAWABATA SHOICHI [JP], et al

Cited by

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JP 4071204 B2 20080402; KR 100995791 B1 20101122; KR 20060042212 A 20060512; TW 200529723 A 20050901;
US 2005189137 A1 20050901; US 2007110956 A1 20070517; US 7243424 B2 20070717

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